

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) Crinkling device for a wrapping machine, designed to adjust the width of a foil web [[(1)]] to be wrapped around an object between a full first web width (W₁) and a substantially narrow reduced second web width (W₂), said crinkling device comprising

- a frame [[(2)]] connected to a foil dispenser comprised in the wrapping machine, said foil dispenser carrying a foil web roll of foil web [[(1)]] having a longitudinal upper edge [[(3)]] and a longitudinal lower edge [[(4)]]],

- a first wheel [[(5)]] rotatably mounted on the frame [[(2)]]],

- a second wheel rotatably mounted on the frame [[(2)]] at a distance from the first wheel [[(5)]]],

- an endless drive element [[(7)]]], which is passed over the first wheel [[(5)]] and the second wheel [[(6)]]], forming a first drive element portion [[(8)]] and a second drive element portion [[(9)]]], said portions extending adjacently and parallel to each other between the wheels in the widthwise direction of the foil web,

- a power means [[(10)]] for moving the drive element [[(7)]] optionally in a first running direction [[(11)]] with the first drive element portion [[(8)]] moving upwards and the second drive element portion [[(9)]] moving downwards, and in an opposite second running direction [[(12)]] with the first drive element portion [[(8)]] moving downwards and the second drive element portion [[(9)]] moving upwards.

- a first carriage [[(13)]]], which is fastened to the first drive element portion [[(9)]] and guided in the frame [[(2)]] so as to be movable in the widthwise direction of the foil web,

- a first crinkling element [[(14)]]], which is mounted on the first carriage [[(13)]] for crinkling the upper edge [[(3)]] of the foil web,

- a second crinkling element [[(15)]], which is movable by the action of the drive element [[(7)]] in the widthwise direction of the foil web [[(1)]] for crinkling the lower edge [[(4)]] of the foil web, characterized in that the crinkling device comprises

- a slide rod [[(16)]], to which the second crinkling element [[(15)]] is fastened and which is guided in the frame [[(2)]] so as to be movable in a substantially vertical direction between a lower position [[(L)]], in which the second crinkling element [[(15)]] is out of contact with the lower edge [[(4)]] of the foil web [[(1)]], and an upper position [[(U)]], in which the second crinkling element [[(15)]] deflects the lower edge [[(4)]] of the foil web [[(1)]] upwards so as to crinkle it, said slide rod being arranged to return towards the lower position [[(L)]] when not exposed to a force acting in the upward direction;

- first coupling means [[(17¹, 18¹)]]) for forming a releasable coupling between the slide rod [[(16)]] and the first drive element portion [[(8)]] when the drive element [[(7)]] is running in the first direction [[(11)]] to move the second crinkling element [[(15)]] to the upper position [[(U)]]; and

- second coupling means [[(17², 18²)]]) for forming a releasable coupling between the slide rod [[(16)]] and the second drive element portion [[(9)]] when the drive element [[(7)]] is running in the second direction [[(12)]] to move the second crinkling element [[(15)]] to the upper position [[(U)]];

so that, by driving the drive element [[(7)]] in the first running direction [[(11)]]], the foil web [[(1)]] can only be crinkled from its lower edge [[(4)]]], and

by driving the drive element [[(7)]] in the second running direction [[(12)]]], the foil web [[(1)]] can be crinkled optionally either from the upper edge [[(3)]] without crinkling the lower edge [[(4)]] or from the upper edge [[(3)]] and the lower edge [[(4)]] simultaneously.

2. (Currently Amended) Crinkling device according to claim 1, characterized in that the first coupling means [[(17¹, 18¹)]]) comprise

- a first dog [[(17¹)]]) connected to the slide rod [[(15)]] near the upper end, and
- a second dog [[(18¹)]], which is connected to the first carriage [[(13)]] and fitted to come into contact with the first dog [[(17)]] when the drive element [[(7)]] is running in the first direction [[(11)]]].

3. (Currently Amended) Crinkling device according to claim 1 [[or 2]], characterized in that the crinkling device comprises a second carriage [[(21)]], which is fastened to the second drive element portion [[(9)]] and guided in the frame [[(2)]] so as to be movable in the widthwise direction of the foil web [[(1)]].

4. (Currently Amended) Crinkling device according to claim 3, characterized in that the second coupling means [[(17², 18²)]] comprise
- a third dog [[(17²)]], which is connected to the slide rod [[(16)]] near the upper end, and
- a fourth dog [[(18²)]], which is connected to the second carriage [[(21)]] and fitted to come into contact with the third dog [[(17²)]]) when the drive element [[(7)]] is running in the second direction [[(12)]].

5. (Currently Amended) Crinkling device according to claim 1 [[or 2]], characterized in that the slide rod [[(16)]] comprises a straight rod part [[(19)]] mounted in the frame [[(2)]] by means of guide elements [[(20)]] placed between the first drive element portion [[(8)]] and the second drive element portion [[(9)]].

6. (Currently Amended) Crinkling device according to claim 5, characterized in that the slide rod [[(16)]] is so mounted in the frame [[(2)]] that the slide rod will be returned to the lower position]](L)]] by the action of gravitation.

7. (Currently Amended) Crinkling device according to ~~any one of claims 1—6~~ claim 1, characterized in that a return spring [[(25)]] is provided between the slide rod [[(16)]] and the frame [[(2)]] for returning the slide rod to the lower position [[(L)]].

8. (Currently Amended) Crinkling device according to ~~any one of claims 1—6~~ claim 1, characterized in that the power means [[(10)]] is a motor arranged to drive the first wheel [[(5)]] or the second wheel [[(6)]].

9. (Currently Amended) Crinkling device according to ~~any one of claims 1—8~~ claim 1, characterized in that the crinkling device comprises detectors [[(22, 23, 24)]] for detecting the position of the carriages [[(13, 21)]] and controlling the power means [[(10)]] on that basis to stop the motion of the drive element [[(7)]] and to change its running direction.

10. (Currently Amended) Crinkling device according to claim 9 [[or 10]], characterized in that the detectors [[(22, 23, 24)]] are proximity sensors having a first state [[(0)]] and a second state [[(1)]]; and that the detectors [[(22, 23, 24)]] have been fitted to change their state between the first and second states when the first carriage [[(13)]] and/or the second carriage [[(21)]] is within the detection distance of the detector.